

### **REMARKS**

This is a full and timely response to the outstanding non-final Office Action mailed on June 13, 2008 (Paper No. 20080428). Upon entry of this response, claims 1-6 and 13-83 are pending in the application. In this response, claims 1, 28 and 62 have been amended. Applicants respectfully request that the amendments being filed herewith be entered and request reconsideration and allowance of all pending claims.

#### **I. Claim Objections**

Claims 28-31 have been objected to for various informalities. Specifically, claim 28 has been objected to because "claims 28-31 are improper dependent form for failing to further the subject matter of a computer-readable medium of claims 15 and 16." In response to the objection, claim 28 has been amended. In view of the amendment, Applicants respectfully submit that the objection have been overcome and request that the objection be withdrawn.

#### **II. Claim Rejections under 35 U.S.C. §102(e)**

Claims 1-6 and 13-83 have been rejected under 35 U.S.C. § 102(e) as allegedly anticipated by *Dai et al.* (U.S. Patent Application Pub. No. 2008/0106698, hereafter "*Dai*").

Applicants respectfully traverse this rejection as applied to pending claims 1-6 and 13-83.

"A claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference." MPEP § 2131 *quoting* *Verdegaal Bros. v. Union Oil Co. of California*, 814 F.2d 628, 631, 2 USPQ2d 1051, 1053 (Fed. Cir. 1987). Therefore, every claimed feature of the claimed invention must be represented in the applied reference to constitute a proper rejection under 35 U.S.C. § 102(e). In the present case, not every feature of the amended claims is represented in the *Betrabet* reference.

**A. Independent Claim 13**

Applicants' claim 13 provides as follows (emphasis added):

A system comprising:

**means for interactively obtaining neuro-ocular wavefront data from a subject**, the obtained neuro-ocular wavefront data representing anomalies in the visual system of the subject, **the neuro-ocular wavefront data being represented by an equation**, the equation having coefficients; and

means for correlating the neuro-ocular wavefront data to confounding parameters associated with the visual system of the subject, each parameter being correlated to a coefficient of the equation.

Applicants respectfully submit that independent claim 13 is allowable for at least the reason that *Dai* fails to disclose, teach, or suggest at least the features recited and emphasized above in claim 13.

The Office Action alleges "Dai et al, Figs. 3, 9C-13, 18C-24, discloses a device for establishing an optical surface shape... Establish an optical surface shape is nothing more that 'obtain neuro-ocular wavefront data'... obtain the neuro-ocular wavefront data via MTF..."

(Office Action at pages 4-5). Applicants respectfully disagree. Specifically, *Dai* teaches:

The present invention can establish a prescription that mitigates or treats presbyopia in a particular patient. In some embodiments, an optically optimized shape may be generated based on patient data input. ... These optimized shapes can be derived numerically using input patient parameters such as pupil size, residual accommodation, and desired vergence. Presbyopia-mitigating shapes may be scaled (or otherwise varied) in response to patient data such as one or more pupil diameters. Appropriate scaling may be determined at least in part from prior patient data from patients having differing pupil sizes and/or differing shapes.

To determine what powers would be desirable for a particular patient at different viewing conditions, we might measure both the manifest sphere and corresponding pupil sizes of that patient at a variety of different viewing conditions. The manifest sphere may then be used as our desired or effective power to be used for treating presbyopia, as detailed below. The desired optical power might also be determined from the measured manifest, for example, with desired power being a function of the manifest to adjust for residual accommodation and/or anticipated aging effects or the like.

(*Dai* at paragraphs 0013 and 0072). Thus, while *Dai* discloses measuring physical properties of an eye, *Dai* does not teach or suggest “obtaining neuro-ocular wavefront data” as recited in claim 13.

Nor does *Dai* disclose or suggest obtaining neuro-ocular wavefront data via a modulation transfer function (MTF) as alleged. Specifically, *Dai* teaches that:

The present invention provides methods for establishing a customized optical shape for a particular patient based on a set of patient parameters per the goal function.

Monochromatic point spread function (PSF) has been used for describing optical defects of optical systems having aberrations. Due to the simple relationship between wave aberrations and the PSF for incoherent light source, Fourier transform of the generalized pupil function has been used in the calculation of point spread functions.

The goal function can also be a function of modulation transfer function (MTF). Modulation transfer function can be used to predict visual performance. Typically, the MTF at one spatial frequency corresponds to one angular extent of targets. The modulation transfer function (MTF) can be calculated with the following formulations:

$$\text{MTF}(u,v) = \text{FT}[\text{PSF}(x,y)]$$

$$\text{MTF}(u,v) = \text{Re}[\text{GPF}(x,y) \otimes \text{GPF}(x,y)]$$

where  $u$  and  $v$  represent spatial frequencies,  $\text{Re}$  represents the real part of a complex number,  $\text{FT}$  represents a Fourier Transform,  $\text{GPF}$  represents a generalized pupil function, and  $x$  and  $y$  represent position or field of view.

(*Dai* at paragraphs 0077, 0079, and 0082). Thus, while *Dai* teaches that a MTF can be used to predict visual performance of an eye based upon a PSF describing optical defects or a generalized pupil function, *Dai* does not disclose or suggest obtaining neuro-ocular wavefront data via an MTF as alleged. Therefore, *Dai* does not teach or suggest “obtaining neuro-ocular wavefront data”, much less “means for interactively obtaining neuro-ocular wavefront data from a subject” as recited in claim 13.

In addition, while *Dai* teaches “determining a polynomial expansion from a wavefront of an eye, and calculating a plurality of effective powers based on a plurality of expansion coefficients of the polynomial expansion at different viewing pupil sizes” (*Dai* at paragraph 0029) where “the wavefront can be thought of as an optimal shape for presbyopia correction” (*Dai* at

paragraph 0101, emphasis added). Thus, while *Dai* teaches determining a polynomial expansion from the optimal shape of an eye, *Dai* does not disclose or suggest “the neuro-ocular wavefront data being represented by an equation” as recited in claim 13.

For at least the reasons described above, *Dai* fails to disclose, teach or suggest all of the features recited in claim 13. Therefore, Applicants respectfully submit that the rejection of claim 13 be withdrawn.

**B. Dependent Claim 14**

Since independent claim 13 is allowable, Applicants respectfully submit that claim 14 is allowable for at least the reason that it depends from an allowable claim. *In re Fine*, 837 F.2d 1071, 5 U.S.P.Q. 2d 1596, 1598 (Fed. Cir.1988). Therefore, Applicants respectfully request that the rejection of claim 14 be withdrawn.

**C. Independent Claim 50**

Applicants’ claim 50 provides as follows (emphasis added):

A system comprising:

**a refractometer configured to interactively obtain neuro-ocular wavefront data from a subject,** and

a processor configured to correlate the neuro-ocular wavefront data to a vision parameter associated with the subject.

Applicants respectfully submit that independent claim 50 is allowable for at least the reason that *Dai* fails to disclose, teach, or suggest at least the features recited and emphasized above in claim 50.

The Office Action alleges “*Dai et al*, Figs. 3, 9C-13, 18C-24, discloses a device for establishing an optical surface shape... Establish an optical surface shape is nothing more that ‘obtain neuro-ocular wavefront data’... obtain the neuro-ocular wavefront data via MTF...” (Office Action at pages 4-5). Applicants respectfully disagree. Specifically, *Dai* teaches:

an optically optimized shape may be generated based on patient data input. ... These optimized shapes can be derived numerically using input patient parameters such as pupil size, residual accommodation, and desired vergence.

To determine what powers would be desirable for a particular patient at different viewing conditions, we might measure both the manifest sphere and corresponding pupil sizes of that patient at a variety of different viewing conditions. The manifest sphere may then be used as our desired or effective power to be used for treating presbyopia, as detailed below. The desired optical power might also be determined from the measured manifest, for example, with desired power being a function of the manifest to adjust for residual accommodation and/or anticipated aging effects or the like.

(*Dai* at paragraphs 0013 and 0072). Thus, while *Dai* discloses measuring physical properties of an eye, *Dai* does not teach or suggest “obtaining neuro-ocular wavefront data” as recited in claim 50.

Nor does *Dai* disclose or suggest obtaining neuro-ocular wavefront data via a modulation transfer function (MTF) as alleged. Specifically, *Dai* teaches that:

The present invention provides methods for establishing a customized optical shape for a particular patient based on a set of patient parameters per the goal function.

Monochromatic point spread function (PSF) has been used for describing optical defects of optical systems having aberrations.

The goal function can also be a function of modulation transfer function (MTF). Modulation transfer function can be used to predict visual performance. ... The modulation transfer function (MTF) can be calculated with the following formulations:

$$\text{MTF}(u,v) = \text{FT}[\text{PSF}(x,y)]$$

$$\text{MTF}(u,v) = \text{Re}[\text{GPF}(x,y) \otimes \text{GPF}(x,y)]$$

where  $u$  and  $v$  represent spatial frequencies,  $\text{Re}$  represents the real part of a complex number,  $\text{FT}$  represents a Fourier Transform,  $\text{GPF}$  represents a generalized pupil function, and  $x$  and  $y$  represent position or field of view.

(*Dai* at paragraphs 0077, 0079, and 0082). Thus, while *Dai* teaches that a MTF can be used to predict visual performance of an eye based upon a PSF describing optical defects or a generalized pupil function, *Dai* does not disclose or suggest obtaining neuro-ocular wavefront data via an MTF as alleged. Therefore, *Dai* does not teach or suggest “obtaining neuro-ocular wavefront data”, much less “means for interactively obtaining neuro-ocular wavefront data from a subject” as recited in claim 50.

In addition, while *Dai* teaches “a pupilometer for measuring a first dimension of the pupil” (*Dai* at paragraph 0018), *Dai* does not mention “a refractometer”. Nor does the Office Action even allege that *Dai* teaches or suggests “a refractometer”. Thus, *Dai* does not disclose or suggest “a refractometer configured to interactively obtain neuro-ocular wavefront data from a subject” as recited in claim 50.

For at least the reasons described above, *Dai* fails to disclose, teach or suggest all of the features recited in claim 50. Therefore, Applicants respectfully submit that the rejection of claim 50 be withdrawn.

**D. Dependent Claims 51-64**

Since independent claim 50 is allowable, Applicants respectfully submit that claims 51-64 are allowable for at least the reason that each depends from an allowable claim. *In re Fine*, 837 F.2d 1071, 5 U.S.P.Q. 2d 1596, 1598 (Fed. Cir.1988). Therefore, Applicants respectfully request that the rejection of claims 51-64 be withdrawn.

Furthermore, while the Office Action alleges that claims 51-58 are anticipated by *Dai*, the Office Action does not even allege that *Dai* teaches or suggests the features of claims 51-58. In MPEP § 2141 states that “35 U.S.C. 132 requires that the applicant be notified of the reasons for the rejection of the claim so that he or she can decide how best to proceed” (emphasis added). Thus, for at least that reason, Applicants respectfully submit that the rejection of claims 51-58 should be withdrawn.

**E. Independent Claim 65**

Applicants’ claim 65 provides as follows (emphasis added):

A system comprising:

***means for obtaining neuro-ocular wavefront data from a subject;***

and

means for correlating the neuro-ocular wavefront data to a vision parameter of the subject.

Applicants respectfully submit that independent claim 65 is allowable for at least the reason that *Dai* fails to disclose, teach, or suggest at least the features recited and emphasized above in claim 65.

The Office Action alleges “*Dai et al*, Figs. 3, 9C-13, 18C-24, discloses a device for establishing an optical surface shape... Establish an optical surface shape is nothing more that ‘obtain neuro-ocular wavefront data’... obtain the neuro-ocular wavefront data via MTF...”

(Office Action at pages 4-5). Applicants respectfully disagree. Specifically, *Dai* teaches:

an optically optimized shape may be generated based on patient data input. ... These optimized shapes can be derived numerically using input patient parameters such as pupil size, residual accommodation, and desired vergence.

To determine what powers would be desirable for a particular patient at different viewing conditions, we might measure both the manifest sphere and corresponding pupil sizes of that patient at a variety of different viewing conditions. The manifest sphere may then be used as our desired or effective power to be used for treating presbyopia, as detailed below. The desired optical power might also be determined from the measured manifest, for example, with desired power being a function of the manifest to adjust for residual accommodation and/or anticipated aging effects or the like.

(*Dai* at paragraphs 0013 and 0072). Thus, while *Dai* discloses measuring physical properties of an eye, *Dai* does not teach or suggest “obtaining neuro-ocular wavefront data” as recited in claim 65.

Nor does *Dai* disclose or suggest obtaining neuro-ocular wavefront data via a modulation transfer function (MTF) as alleged. Specifically, *Dai* teaches that:

The present invention provides methods for establishing a customized optical shape for a particular patient based on a set of patient parameters per the goal function.

Monochromatic point spread function (PSF) has been used for describing optical defects of optical systems having aberrations.

The goal function can also be a function of modulation transfer function (MTF). Modulation transfer function can be used to predict visual performance. ... The modulation transfer function (MTF) can be calculated with the following formulations:

$$\text{MTF}(u,v) = \text{FT}[\text{PSF}(x,y)]$$

$MTF(u,v) = \text{Re}[GPF(x,y) \otimes GPF(x,y)]$   
where  $u$  and  $v$  represent spatial frequencies,  $\text{Re}$  represents the real part of a complex number,  $\text{FT}$  represents a Fourier Transform,  $\text{GPF}$  represents a generalized pupil function, and  $x$  and  $y$  represent position or field of view.

(*Dai* at paragraphs 0077, 0079, and 0082). Thus, while *Dai* teaches that a MTF can be used to predict visual performance of an eye based upon a PSF describing optical defects or a generalized pupil function, *Dai* does not disclose or suggest obtaining neuro-ocular wavefront data via an MTF as alleged. Therefore, *Dai* does not teach or suggest “obtaining neuro-ocular wavefront data”, much less “means for obtaining neuro-ocular wavefront data from a subject” as recited in claim 65.

For at least the reasons described above, *Dai* fails to disclose, teach or suggest all of the features recited in claim 65. Therefore, Applicants respectfully submit that the rejection of claim 65 be withdrawn.

#### **F. Dependent Claims 66-73**

Since independent claim 65 is allowable, Applicants respectfully submit that claims 66-73 are allowable for at least the reason that each depends from an allowable claim. *In re Fine*, 837 F.2d 1071, 5 U.S.P.Q. 2d 1596, 1598 (Fed. Cir.1988). Therefore, Applicants respectfully request that the rejection of claims 66-73 be withdrawn.

Furthermore, while the Office Action alleges that claims 66-72 are anticipated by *Dai*, the Office Action does not even allege that *Dai* teaches or suggests the features of claims 66-72. In MPEP § 2141 states that “35 U.S.C. 132 requires that the applicant be notified of the reasons for the rejection of the claim so that he or she can decide how best to proceed” (emphasis added). Thus, for at least that reason, Applicants respectfully submit that the rejection of claims 66-72 should be withdrawn.



**G. Independent Claim 1**

Applicants' claim 1 provides as follows (emphasis added):

A method comprising the steps of:

***interactively obtaining neuro-ocular wavefront data representative of anomalies in a visual system of a subject, the neuro-ocular wavefront data being represented by an equation***, the equation having coefficients; and  
correlating the neuro-ocular wavefront data to confounding parameters associated with the visual system of the subject, each parameter being correlated to a coefficient of the equation

Applicants respectfully submit that independent claim 1 is allowable for at least the reason that *Dai* fails to disclose, teach, or suggest at least the features recited and emphasized above in claim 1.

The Office Action alleges "the method steps consist of the broad steps of 'obtaining' and 'correlating' etc and therefore these steps would be inherently satisfied by the apparatus of the *Dai et al* reference" (Office Action at page 5). Applicants respectfully disagree. Specifically, *Dai* teaches:

an optically optimized shape may be generated based on patient data input. ... These optimized shapes can be derived numerically using input patient parameters such as pupil size, residual accommodation, and desired vergence.

To determine what powers would be desirable for a particular patient at different viewing conditions, we might measure both the manifest sphere and corresponding pupil sizes of that patient at a variety of different viewing conditions. The manifest sphere may then be used as our desired or effective power to be used for treating presbyopia, as detailed below. The desired optical power might also be determined from the measured manifest, for example, with desired power being a function of the manifest to adjust for residual accommodation and/or anticipated aging effects or the like.

(*Dai* at paragraphs 0013 and 0072). Thus, while *Dai* discloses measuring physical properties of an eye, *Dai* does not teach or suggest "obtaining neuro-ocular wavefront data" as recited in claim 1. Nor does *Dai* disclose or suggest obtaining neuro-ocular wavefront data via a MTF. Therefore, *Dai* does not teach or suggest "interactively obtaining neuro-ocular wavefront data representative of anomalies in a visual system of a subject" as recited in claim 1.

In addition, while *Dai* teaches “determining a polynomial expansion from a wavefront of an eye, and calculating a plurality of effective powers based on a plurality of expansion coefficients of the polynomial expansion at different viewing pupil sizes” (*Dai* at paragraph 0029) where “the wavefront can be thought of as an optimal shape for presbyopia correction” (*Dai* at paragraph 0101, emphasis added). Thus, while *Dai* teaches determining a polynomial expansion from the optimal shape of an eye, *Dai* does not disclose or suggest “the neuro-ocular wavefront data being represented by an equation” as recited in claim 1.

Furthermore, Applicants submit that, for at least the reasons discussed above, one skilled in the art would understand that obtaining neuro-ocular wavefront data is not necessarily satisfied the apparatus of *Dai* as alleged. “To establish inherency, the extrinsic evidence ‘must make clear that the missing descriptive matter is necessarily present in the thing described in the reference, and that it would be so recognized by persons of ordinary skill. Inherency, however, may not be established by probabilities or possibilities. The mere fact that a certain thing may result from a given set of circumstances is not sufficient.’” *In re Robertson*, 169 F.3d 743, 745, 49 USPQ2d 1949, 1950-51 (Fed. Cir. 1999) (citations omitted). Because of the lack of extrinsic evidence required under *In re Robertson*, the Office Action’s statement is merely conclusory and not adequately supported.

For at least the reasons described above, *Dai* fails to disclose, teach or suggest all of the features recited in claim 1. Therefore, Applicants respectfully submit that the rejection of claim 1 be withdrawn.

#### **H. Dependent Claims 2-6**

Since independent claim 1 is allowable, Applicants respectfully submit that claims 2-6 are allowable for at least the reason that each depends from an allowable claim. *In re Fine*, 837 F.2d 1071, 5 U.S.P.Q. 2d 1596, 1598 (Fed. Cir.1988). Therefore, Applicants respectfully request that the rejection of claims 2-6 be withdrawn.

**I. Independent Claim 17**

Applicants' claim 17 provides as follows (emphasis added):

A method comprising the steps of:  
**obtaining neuro-ocular wavefront data;** and  
correlating the neuro-ocular wavefront data to a vision parameter of a  
subject

Applicants respectfully submit that independent claim 17 is allowable for at least the reason that *Dai* fails to disclose, teach, or suggest at least the features recited and emphasized above in claim 17.

The Office Action alleges "the method steps consist of the broad steps of 'obtaining' and 'correlating' etc and therefore these steps would be inherently satisfied by the apparatus of the *Dai et al* reference" (Office Action at page 5). Applicants respectfully disagree. Specifically, *Dai* teaches:

an optically optimized shape may be generated based on patient data input. ... These optimized shapes can be derived numerically using input patient parameters such as pupil size, residual accommodation, and desired vergence.

To determine what powers would be desirable for a particular patient at different viewing conditions, we might measure both the manifest sphere and corresponding pupil sizes of that patient at a variety of different viewing conditions. The manifest sphere may then be used as our desired or effective power to be used for treating presbyopia, as detailed below. The desired optical power might also be determined from the measured manifest, for example, with desired power being a function of the manifest to adjust for residual accommodation and/or anticipated aging effects or the like.

(*Dai* at paragraphs 0013 and 0072). Thus, while *Dai* discloses measuring physical properties of an eye, *Dai* does not teach or suggest "obtaining neuro-ocular wavefront data" as recited in claim 17. Nor does *Dai* disclose or suggest obtaining neuro-ocular wavefront data via a MTF. Therefore, *Dai* does not teach or suggest "obtaining neuro-ocular wavefront data" as recited in claim 17.

Furthermore, Applicants submit that, for at least the reasons discussed above, one skilled in the art would understand that obtaining neuro-ocular wavefront data is not necessarily

satisfied the apparatus of *Dai* as alleged. "To establish inherency, the extrinsic evidence 'must make clear that the missing descriptive matter is necessarily present in the thing described in the reference, and that it would be so recognized by persons of ordinary skill. Inherency, however, may not be established by probabilities or possibilities. The mere fact that a certain thing may result from a given set of circumstances is not sufficient.'" *In re Robertson*, 169 F.3d 743, 745, 49 USPQ2d 1949, 1950-51 (Fed. Cir. 1999) (citations omitted). Because of the lack of extrinsic evidence required under *In re Robertson*, the Office Action's statement is merely conclusory and not adequately supported.

For at least the reasons described above, *Dai* fails to disclose, teach or suggest all of the features recited in claim 17. Therefore, Applicants respectfully submit that the rejection of claim 17 be withdrawn.

**J. Dependent Claims 18-49**

Since independent claim 17 is allowable, Applicants respectfully submit that claims 18-49 are allowable for at least the reason that each depends from an allowable claim. *In re Fine*, 837 F.2d 1071, 5 U.S.P.Q. 2d 1596, 1598 (Fed. Cir.1988). Therefore, Applicants respectfully request that the rejection of claims 18-49 be withdrawn.

Furthermore, while the Office Action alleges that claims 18-31 and 49 are anticipated by *Dai*, the Office Action does not even allege that *Dai* teaches or suggests the features of claims 18-31 and 49. In MPEP § 2141 states that "35 U.S.C. 132 requires that the applicant be notified of the reasons for the rejection of the claim so that he or she can decide how best to proceed" (emphasis added). Thus, for at least that reason, Applicants respectfully submit that the rejection of claims 18-31 and 49 should be withdrawn.

**K. Independent Claim 15**

Applicants' claim 15 provides as follows (emphasis added):

A computer-readable medium comprising:  
***computer-readable code adapted to instruct a programmable***

**device to interactively obtain neuro-ocular wavefront data from a subject**, the obtained neuro-ocular wavefront data representing anomalies in the visual system of the subject, **the neuro-ocular wavefront data being represented by an equation**, the equation having coefficients; and

computer-readable code adapted to instruct a programmable device to correlate the neuro-ocular wavefront data to parameters associated with the visual system of the subject, each parameter being correlated to a coefficient of the equation

Applicants respectfully submit that independent claim 15 is allowable for at least the reason that *Dai* fails to disclose, teach, or suggest at least the features recited and emphasized above in claim 15.

The Office Action alleges that the “Dai et al’s computer-readable code medium includ[es] computer-readable code adapted to instruct a programmable device to interactively obtain neuro-ocular wavefront data from a subject” (Office Action at page 6). Applicants respectfully disagree. Specifically, *Dai* teaches:

an optically optimized shape may be generated based on patient data input. ... These optimized shapes can be derived numerically using input patient parameters such as pupil size, residual accommodation, and desired vergence.

To determine what powers would be desirable for a particular patient at different viewing conditions, we might measure both the manifest sphere and corresponding pupil sizes of that patient at a variety of different viewing conditions. The manifest sphere may then be used as our desired or effective power to be used for treating presbyopia, as detailed below. The desired optical power might also be determined from the measured manifest, for example, with desired power being a function of the manifest to adjust for residual accommodation and/or anticipated aging effects or the like.

(*Dai* at paragraphs 0013 and 0072). Thus, while *Dai* discloses measuring physical properties of an eye, *Dai* does not teach or suggest “obtain[ing] neuro-ocular wavefront data” as recited in claim 15. Nor does *Dai* disclose or suggest obtaining neuro-ocular wavefront data via a MTF. Therefore, *Dai* does not teach or suggest “computer-readable code adapted to instruct a programmable device to interactively obtain neuro-ocular wavefront data from a subject” as recited in claim 15.

In addition, while *Dai* teaches “determining a polynomial expansion from a wavefront of an eye, and calculating a plurality of effective powers based on a plurality of expansion coefficients of the polynomial expansion at different viewing pupil sizes” (*Dai* at paragraph 0029) where “the wavefront can be thought of as an optimal shape for presbyopia correction” (*Dai* at paragraph 0101, emphasis added). Thus, while *Dai* teaches determining a polynomial expansion from the optimal shape of an eye, *Dai* does not disclose or suggest “the neuro-ocular wavefront data being represented by an equation” as recited in claim 15.

For at least the reasons described above, *Dai* fails to disclose, teach or suggest all of the features recited in claim 15. Therefore, Applicants respectfully submit that the rejection of claim 15 be withdrawn.

**L. Dependent Claim 16**

Since independent claim 15 is allowable, Applicants respectfully submit that claim 16 is allowable for at least the reason that it depends from an allowable claim. *In re Fine*, 837 F.2d 1071, 5 U.S.P.Q. 2d 1596, 1598 (Fed. Cir.1988). Therefore, Applicants respectfully request that the rejection of claim 16 be withdrawn.

**M. Independent Claim 74**

Applicants’ claim 74 provides as follows (emphasis added):

A computer-readable medium comprising:  
**computer-readable code adapted to instruct a programmable device to obtain neuro-ocular wavefront data from a subject;** and  
computer-readable code adapted to instruct a programmable device to correlate the neuro-ocular wavefront data to a vision parameter of the subject.

Applicants respectfully submit that independent claim 74 is allowable for at least the reason that *Dai* fails to disclose, teach, or suggest at least the features recited and emphasized above in claim 74.

The Office Action alleges that the “Dai et al’s computer-readable code medium includ[es] computer-readable code adapted to instruct a programmable device to interactively obtain

neuro-ocular wavefront data from a subject” (Office Action at page 6). Applicants respectfully disagree. Specifically, *Dai* teaches:

an optically optimized shape may be generated based on patient data input. ... These optimized shapes can be derived numerically using input patient parameters such as pupil size, residual accommodation, and desired vergence.

To determine what powers would be desirable for a particular patient at different viewing conditions, we might measure both the manifest sphere and corresponding pupil sizes of that patient at a variety of different viewing conditions. The manifest sphere may then be used as our desired or effective power to be used for treating presbyopia, as detailed below. The desired optical power might also be determined from the measured manifest, for example, with desired power being a function of the manifest to adjust for residual accommodation and/or anticipated aging effects or the like.

(*Dai* at paragraphs 0013 and 0072). Thus, while *Dai* discloses measuring physical properties of an eye, *Dai* does not teach or suggest “obtain[ing] neuro-ocular wavefront data” as recited in claim 74. Nor does *Dai* disclose or suggest obtaining neuro-ocular wavefront data via a MTF. Therefore, *Dai* does not teach or suggest “computer-readable code adapted to instruct a programmable device to obtain neuro-ocular wavefront data from a subject” as recited in claim 74.

For at least the reasons described above, *Dai* fails to disclose, teach or suggest all of the features recited in claim 74. Therefore, Applicants respectfully submit that the rejection of claim 74 be withdrawn.

#### **N. Dependent Claims 75-83**

Since independent claim 74 is allowable, Applicants respectfully submit that claims 75-83 are allowable for at least the reason that each depends from an allowable claim. *In re Fine*, 837 F.2d 1071, 5 U.S.P.Q. 2d 1596, 1598 (Fed. Cir.1988). Therefore, Applicants respectfully request that the rejection of claims 75-83 be withdrawn.

Furthermore, while the Office Action alleges that claims 75-82 are anticipated by *Dai*, the Office Action does not even allege that *Dai* teaches or suggests the features of claims 75-82. In

MPEP § 2141 states that “35 U.S.C. 132 requires that the applicant be notified of the reasons for the rejection of the claim so that he or she can decide how best to proceed” (emphasis added). Thus, for at least that reason, Applicants respectfully submit that the rejection of claims 75-82 should be withdrawn.

**III. *Dai* reference is not Prior Art to the Presently Claimed Invention**

The undersigned respectfully submits that the cited *Dai* reference is not prior art to the claimed invention. In this regard, the presently claimed invention was conceived prior to the priority date of the *Dai* reference. The *Dai* reference claims benefit of Provisional Application No. 60/431,634 filed on December 6, 2002. Attached as Exhibit A, for the Examiner’s reference, is a redacted copy of a paper prepared by one of the inventors. The attached document was prepared before the priority date of the *Dai* reference, and evidences the Applicants’ claimed invention prior to the *Dai* reference.

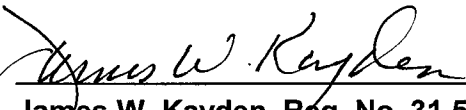
This document is being submitted herewith merely for the Examiner’s reference, and no formal documents are being submitted to formally swear behind the *Dai* reference (as the undersigned respectfully submits that the rejections should be withdrawn for the substantive reasons set forth above). Should, however, the Examiner maintain the rejections, then the Applicants may submit a declaration under 37 CFR 1.131, along with a formal request swearing behind the reference and requesting that it be withdrawn from consideration.



**CONCLUSION**

Applicants respectfully request that all outstanding objections and rejections be withdrawn and that this application and presently pending claims 1-6 and 13-83 be allowed to issue. Any statements in the Office Action that are not explicitly addressed herein are not intended to be admitted. In addition, any and all findings of inherency are traversed as not having been shown to be necessarily present. Furthermore, any and all findings of well-known art and official notice, or statements interpreted similarly, should not be considered well known since the Office Action does not include specific factual findings predicated on sound technical and scientific reasoning to support such conclusions. If the Examiner has any questions or comments regarding Applicants' response, the Examiner is encouraged to telephone Applicants' undersigned counsel.

Respectfully submitted,

By:   
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